STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PPC I-Beam Unit - 231'-1" River Bridge Unit - 480'-0" (4 span continuous) 3'-3" & Brg to & Brg 111114 111111 7-3 ELEVATION Existing Existing_ Bk. S. Abut. @ Pier #5 Sta. 948+76.21 Sta. 947+58.71 Existing Existing Existing Existing Existing Existing Existing Existing © Brg. PPC I-Beam Pier #3 Bk. N. Appr. -Bk. N. Abut. - € Pier #1 € Pier #2 Pier #4 Pier #6 Pier #3 Sta. 942+15.63 Sta. 943+38.05 Sta. 947+01.46 Sta. 948+15.96 Sta. 941+61.88 Sta. 945+24.21 Sta. 946+41.88 Sta. 946+45.13 -€ F.A.I. Rte. 57 Stations Increase ______Sta._943+72.0 (typ.) Existing Existing \ Existina Bk. N. Appr. Existing Existing Existing Existing Existing . € Brg. PPC I-Beam Sta. 940+99.79 Bk. N. Abut. - **@** Pier #1 € Pier #2 - *€ Pier* #5 -Bk. S. Abut. Pier #3 Pier #3 Sta. 941+53.54 Sta. 942+75.96 Sta. 944+62.12 Sta. 946+96.62 Sta. 948+14.12 Sta. 945+79.79 Sta. 945+83.04 Existing Existing Pier #6 € Pier #4 Sta. 947+53.87 Sta. 946+39.37

PLAN

714'-4" Back to Back of Abutments

186'-2"

SCOPE OF WORK

- Remove existing HMA overlay.
- Hydroscarify deck 2".
- Perform full depth patching.
- Remove and replace expansion joints at south abutment and pier 3.

53'-9"

Apply 21/2" microsilica overlay and protective coat.

DESIGN STRESSES

56'-4'

NEW CONSTRUCTION

Field Units

117'-8'

= 3.500 psi

fy = 60,000 psi (reinforcement)

ORIGINAL CONSTRUCTION

Field Units $f_c = 1,400 \text{ psi (super & sub)}$

 $f_s = 20,000 psi (reinforcement)$

 f_s = 20,000 psi (structural steel)

vc = 75 psi n = 10

Precast Prestressed Units

 $f_c = 5,000 \ psi$

 $f_{ci} = 4,000 psi$

 $f_s=248,000$ psi ($^7_{16}$ ' $^\phi$ stress relieved strands) $f_{si}=173,600$ psi ($^7_{16}$ ' $^\phi$ stress relieved strands)

60'-3''

57′-3′′

Expires 11/30/2010

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck section, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANITY
Concrete Removal	Cu. Yd.	47.1
Concrete Superstructures	Cu. Yd.	52.1
Bridge Deck Grooving	Sq. Yd.	4782
Bar Splicers	Each	42
Reinforcement Bars, Epoxy Coated	Pound	8230
Plug Existing Deck Drains	Each	80
Preformed Joint Strip Seal	Foot	180
Floor Drain Extension	Each	72
Bridge Deck Microsilica Concrete Overlay 2½"	Sq. Yd.	5037
Bridge Deck Hydro-Scarification 12"	Sq. Yd.	5037
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1.4
Protective Coat	Sq. Yd.	5141
HMA Surface Removal (Deck)	Sq. Yd.	5121
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TO STA.

GENERAL PLAN F.A.I. ROUTE 57 OVER CACHE RIVER SECTION D9 BSMART 2010-1 ALEXANDER COUNTY STRUCTURE NO. 002-0003 (N.B.) STRUCTURE NO. 002-0004 (S.B.)

FILE NAME =	USER NAME = cornell1m	DESIGNED -	TWH	REVISED -	Γ
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	PLOT SCALE = 16.0000 '/ IN.	CHECKED -	MAS	REVISED -	l
	PLOT DATE = 2/18/2010	DATE -	11/18/09	REVISED -	

122'-5'

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

PL	PLAN		ELE	VATION	
SN	002	-0003	&	002-0004	
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	F.A.I. SECTION					COUNTY	TOTAL SHEETS	SHEET NO.		
	57	57 D9 BSMART 2010-1					ALEXANDER	25	9	
						CONTRACT NO. 78173				
i	FED. RO	OAD D	DIST.	NO.	ILLINOIS	FED.	AID	PROJECT		